CLAIMS

1. A method for distributing content on demand over a cable network in which the subscribers are connected to a Central Unit in a hierarchical order of nodes, each node comprises a plurality of subscribers clusters, comprising:

   a. Providing a Management System at said Central Unit;

   b. Providing to some of the subscribers within each cluster an STB, and to the rest of the subscribers within each cluster an SSTB;

   c. Transmitting from the Central Unit titles to the SSTBs, and storing the titles within said SSTBs;

   d. Providing to each STB subscriber or SSTB subscriber a viewable list of the titles stored in all the SSTBs that are connected within the cluster of that subscriber; and

   e. Whenever a subscriber selects a title for viewing from said viewable list, transmitting to the STB or the SSTB of that subscriber the selected title from at least one of the SSTBs within the cluster of that subscriber which contain the title or a portion thereof.

2. A method according to claim 1, wherein the title is a video title, and wherein the distribution method is a method for distributing Video On Demand.

3. A method according to claim 1, wherein the title is an audio title.

4. A method according to claim 1, wherein the titles are transmitted from the Central Unit to the SSTBs, during low traffic hours.

5. A method according to claim 1, wherein different portions of each title being stored within different SSTBs within a same cluster.

6. A method according to claim 1, wherein a copy of each title is stored in at least one backup SSTB within a same cluster.

7. A method according to claim 6 wherein, during the transmission of a specific title, the backup SSTB supervises the proper transmission, and when a failure in transmission of the title is detected, continuing transmission of the rest of the title to the subscriber from said backup SSTB.

8. A method according to claim 6 wherein each title being divided to portions that are stored in at least two SSTBs within a same cluster, for preventing the possibility of a copyright breach by copying a full stored title from the SSTB.

9. A method according to claim 8, wherein the title portions are transmitted in sequence to the STB or the SSTB of the ordering subscriber alternatively from the plurality of the SSTBs in which portions of the title are stored, while at any time at least one backup SSTB supervises the proper transmission.

10. A method according to claim 1, wherein the Management System collects data regarding the orders and carries out the billings.

11. A method according to claim 1 wherein the transmission of the content from the Central Unit to the SSTBs and/or the transmission of the ordered content from SSTBs to a subscriber STB or SSTB is encrypted, and decrypted at the receiving end.

12. A method according to claim 1 wherein each SSTBs is capable of carrying out Internet Sessions through the Management System over the existing Internet infrastructures, and thereby providing Internet service to

subscribers within the cluster, by displaying said session as a video stream via their STB/SSTBs.

13. A method according to claim 1 wherein the number of subscribers within a cluster is in the range of several tens of subscribers.

14. A method according to claim 1 wherein a transmission of an ordered title is kept within a cluster by means of a Line Extender blocking leakage of the transmission out of the cluster.

15. A method according to claim 14 wherein the cluster is extended by modifying the blocking Line Extender in such a manner to allow transmission of the Content On Demand within a close medium containing at least two clusters, the leakage of transmission out of the said medium being blocked by another Line Extender.

16. A method according to claim 1 wherein the Management System controls the operations of the system and manages the backups, when needed.

17. A method according to claim 1 further comprising recording and storing selected programs in at least two SSTBs, and transmitting said stored program to the users, whenever a user request is obtained.

18. A method according to claim 1 wherein a SSTB is capable of concurrently transmitting a plurality of selected titles to a requesting STB/SSTB(s).

19. A method according to claim 1 wherein transmissions originated from two or more SSTBs are multiplexed to a single channel by assigning to each SSTB specific frame positions within said channel.

20. A method according to claim 1 wherein at least one SSTB in a cluster is used as a relay station for receiving transmissions from other SSTBs in said cluster, and multiplexing said transmissions on one or more channels.

21. A method according to claim 1 wherein the title transmission from the SSTBs is performed utilizing QAM techniques.

22. A system for providing Content On Demand over a cable network, comprising:

   a. A conventional STBs at some of the subscribers' houses within each cluster, capable of receiving a title on a dedicated channel, and displaying the same on a subscriber TV;

   b. SSTBs at homes of the rest of the subscribers' houses within each cluster, for receiving at low traffic hours one or more content titles, or portions of content titles, for storing the same, and for transmitting upon demand on at least one designated channel any ordered title to one or more STBs or SSTBs of ordering subscribers; and

   c. A Management System for storing a plurality of titles, for transmitting titles to SSTBs within a cluster at low traffic hours, for transmitting a list of titles available for viewing to all STBs and SSTBs within each cluster, and for managing any demand for viewing from users' set top boxes, and conveying such demand to the one or more SSTBs storing the demanded title, for initiating transmission of the requested title from said one or more SSTBs to the set top box of the demanding subscriber.

23. A system according to claim 22 wherein the transmission of a title from an SSTB to an SSTB or STB within a cluster is enabled, while the transmission of a title from an SSTB to an SSTB or STB within another cluster is being blocked by means of a Line Extender located at the entrance to the cluster.

24. A system according to claim 22 wherein the Management System also manages the billing of demanded titles.

25. A system according to claim 22 wherein each SSTB comprises storage for at least one title or portions of a title.

26. A system according to claim 22 wherein each SSTB comprises communication means for conveying status commands, and execution commands to either STBs or SSTBs within its cluster, and to the Management System.

27. A system according to claim 23, wherein at least two clusters are being extended by means of modifying the Line Extenders of said clusters to enable transmission out of the said clusters.

28. A system according to claim 27 wherein the cluster extension extends the cluster to include all subscribers within a node.

29. A system according to claim 22, wherein the links within a cluster are made by means of coax cables, and splitters.

30. An SSTB according to claim 22, comprising:
   a. a first and a second Video Channel Receivers for concurrently receiving titles transmitted on different channels;
   b. an Interactive Channel Receiver for receiving information and control data from the Management System;
   c. an Interactive Channel Transmitter for transmitting requests and status information to said Management System;
   d. an information data Bus;
   e. one or more memories capable of receiving and storing data provided via said information data Bus;

f.   a Storage and Controller unit for managing SSTB operations;

g.   an Encryption unit for encrypting information provided on said Bus;

h.   a CPU unit for processing and carrying out SSTB operations;

i.   a Demultiplexer for selecting multiplexed information provided on said Bus;

j.   an MPEG decoder capable of decoding MPEG data provided on said Bus or via said demultiplexer;

k.   a virtual multiplexer capable of multiplexing a plurality of title data provided on said Bus, to at least a single channel; and

l.   a Video Channel Transmitter capable of transmitting data from said virtual multiplexer on cable Network channels.

31. A method according to claim 1, wherein a plurality or all of the subscribers within a cluster are provided with an SSTB.

32. A system according to claim 22, wherein a plurality or all of the subscribers within a cluster are provided with an SSTB.